## REPORT

OF THE

## COMMISSIONERS

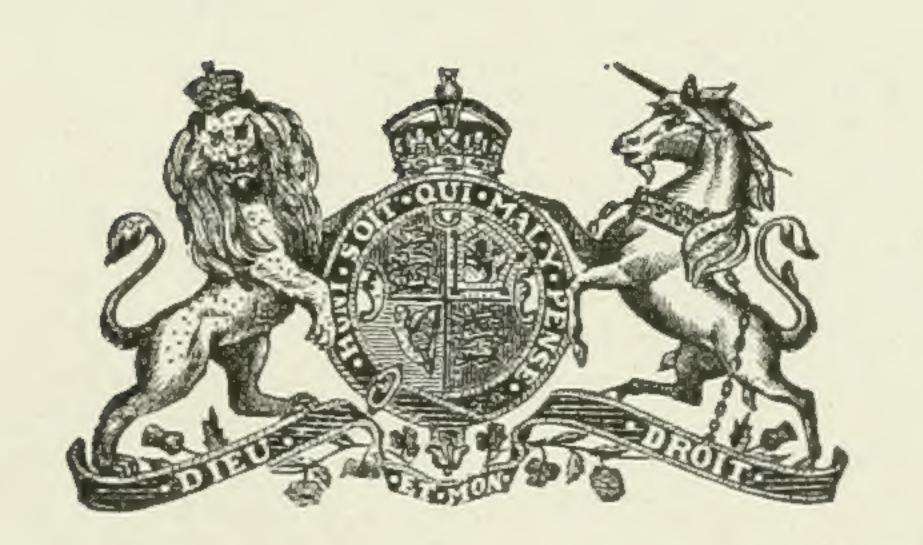
OF THE

## TRANSCONTINENTAL RAILWAY

FOR

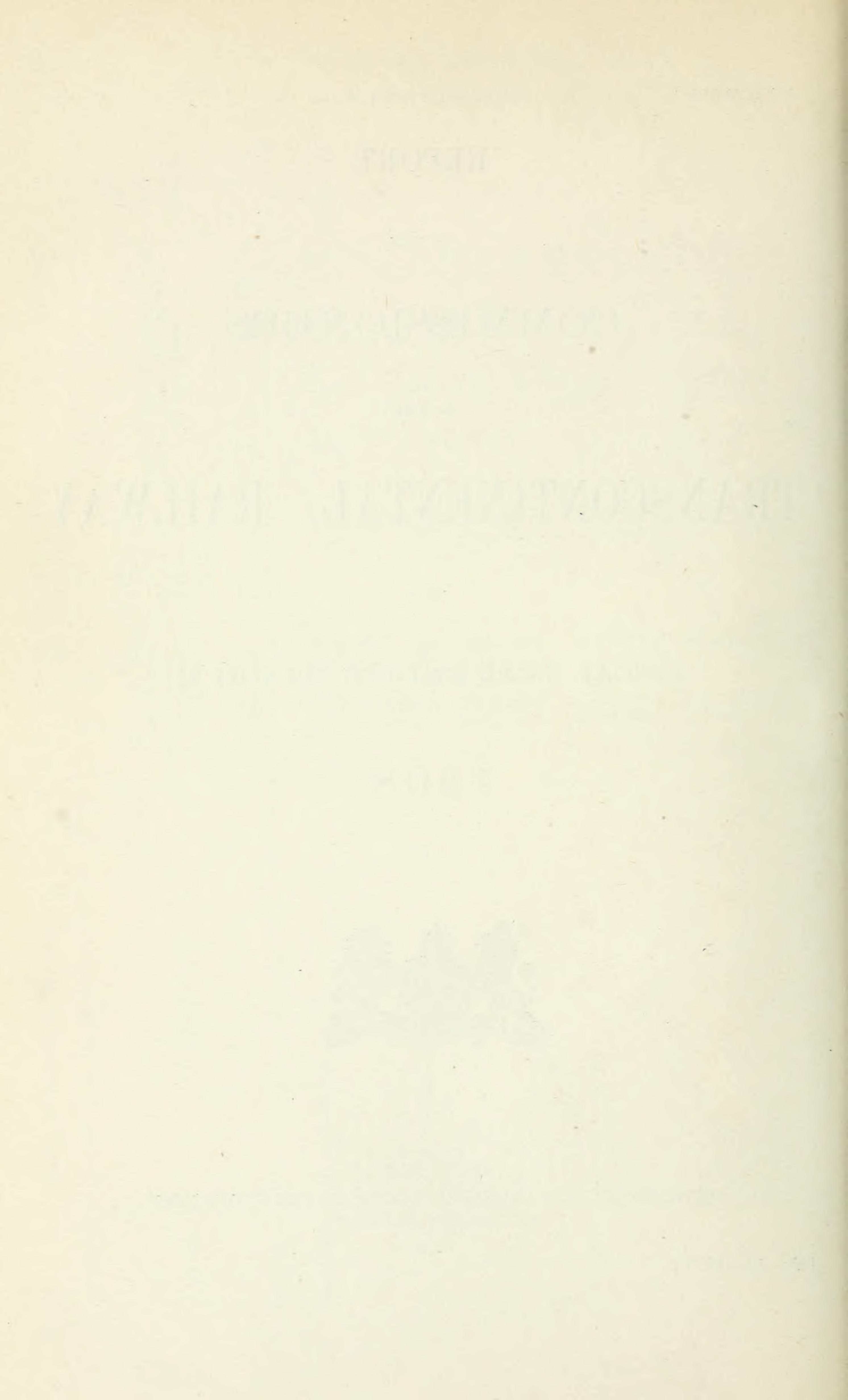
FISCAL YEAR ENDING MARCH 31

1908



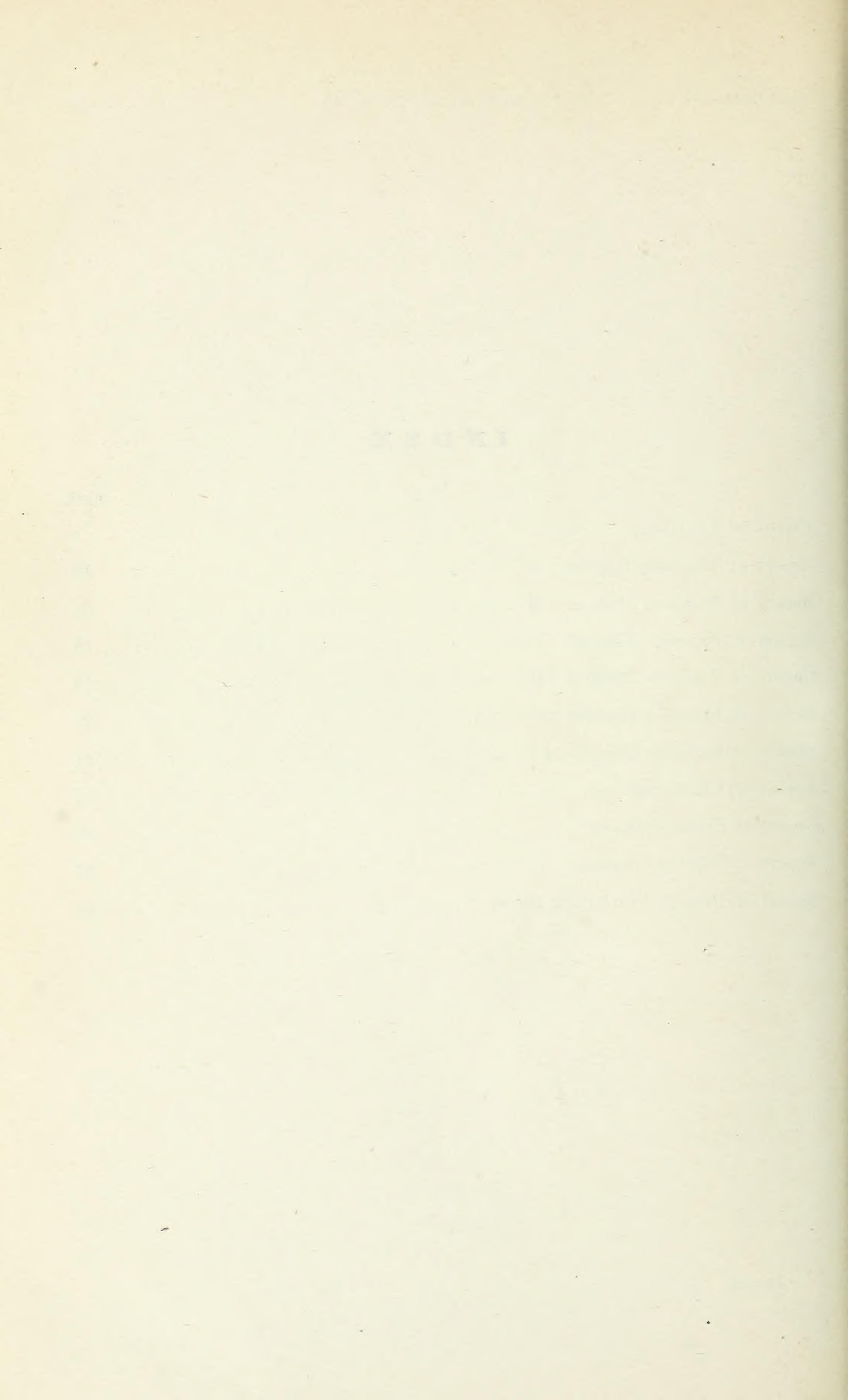
OTTAWA
PRINTED BY C. H. PARMELEE, PRINTER TO THE KING'S MOST
EXCELLENT MAJESTY
1909

[No. 46—1909.]



## INDEX

	PAGE
Report of Chairman	5
Report of Engineer District 'A"	10
Report of Engineer District 'B"	13
Report of Engineer District 'C'	. 16
Report of Engineer District 'D'	18
Report of Engineer District 'E'	22
Report of Engineer District 'F'	24
Report of Chief Engineer	26
Report of Bridge Engineer	28
Report of Chief Accountant	31
Report of General Purchasing Agent	47



## THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

Ottawa, December, 1908.

The Hon. George P. Graham, P.C.,
Minister of Railways and Canals,
Ottawa.

SIR,—We have the honour to transmit through you to His Excellency the Governor General in Council our fourth annual report, being for the fiscal year ended March 31, 1908, setting forth the receipts and expenditures in connection with the Eastern Division of the National Transcontinental Railway, and such other matters in relation to the said railway as appears to be of public interest.

Information in detail as to the progress of the work will be found in the report of the Chief Engineer and in the report of the District Engineers hereto annexed.

#### SURVEYS.

Surveys and final location over the entire line may be said to be completed, with the exception of some slight revision to be made, and the location of about 2½ miles of the entrance into Winnipeg.

The through distance from Moncton, N.B., to Winnipeg, Man., has been reduced by the surveyors by over thirteen miles since the close of the last fiscal year. The exact distance is now 1,804.47 miles.

#### CONSTRUCTION.

The total expenditure during the fiscal year amounts to \$18,910,449.41, and the total expenditure since the organization of the commission to March 31, 1908, is \$27,057,944.04.

Contracts for construction, after having been duly advertised and sanctioned by the Governor in Council, as required by the National Transcontinental Railway Act, have been awarded in each case to the lowest tenderers, as follows, viz.:—

## John W. McManus Co., Ltd., Memramcook, N.B.

District A.—From a point designated on the plans of the commissioners at or near the town of Chipman, in the province of New Brunswick, easterly for a distance of about 8 miles.

## Grand Trunk Pacific Railway Company, Montreal.

District A.—From a point designated on the plans of the commissioners about the 58th mile west of Moncton to the crossing of the I.C.R., at or about mile 97.7, a distance of about 39.7 miles.

## Grand Trunk Pacific Railway Company, Montreal.

District A.—From a point at or about the crossing of the I.C.R., at mile 97.7, west of Moncton, to the Tobique river, at or about mile 165.7 less one mile, a distance of about 67 miles.

## Willard Kitchen Co., Ltd., Grand Falls, N.B.

District A.—From a point about one mile east of the Tobique river to 2½ miles west of Grand Falls, N.B., a distance of about 31.5 miles.

## M. P. & J. T. Davis, Quebec, P.Q.

District B.—From a point at or near the boundary line between the provinces of New Brunswick and Quebec, westerly for a distance of about 52.4 miles.

## E. F. & G. E. Fauquier, Ottawa.

District D.—From a point about eight miles west of the Abitibi river crossing westerly for about 100 miles.

## E. F. & G. E. Fauquier, Ottawa.

District E.—From a point about 19½ miles west of the crossing of Mud river, near Lake Nipigon, easterly for about 75 miles.

#### STEEL BRIDGES.

District F.—The Canadian Bridge Company, Limited, for steel superstructures for bridges over rivers Wabigoon, Winnipeg, Whitemouth, Brokenhead (east and west branch), and Canadian Pacific Railway crossing, Rennie station, Manitoba.

Price for steel:—Wabigoon river, Canadian Pacific Railway crossing, Whitemouth, Brokenhead (east), Brokenhead (west), 5.7 cents per lb.; Winnipeg river, one through truss span, 300' centre to centre of end pins, 6.9 cents per lb.; one 100' deck girder span, 5.7 cents per lb. Price for timber and floor system for all bridges, \$50 per M. ft. b.m.

District B.—Dominion Bridge Company, Limited. Four steel bridge superstructures and one highway bridge at miles 2.45, 13.84, 26.55, 39.36 and 2.17 east of Quebec bridge. Price, steel, 4.72 cents per lb.; timber, \$55 per M. ft. b.m.

District B.—Dominion Bridge Company, Limited. Steel superstructures for nineteen bridges between mile 38 and mile 130 west of the Quebec bridge.

## Prices, steel:-

Grand Bras d'Arme	per lb.
Lachevrotiere river	66
Nigerette river	66
Tawachiche river	66
Roberge creek	66
Rivière des Eaux Mortes	66
Rivière du Milieu	66
Brochet river (5)	66

Creek à Beauce	4.44c.	per lb.
Overhead crossing Q. & L. St. John Railway	4.84c.	66
Little Bostonnais river	4.84c.	66
Big Bostonnais river	4.84c.	66
Croche river		
St. Maurice river		
Rivière au Lait		
Timber		

#### STEEL RAILS.

The Dominion Iron & Steel Company, Limited, 44,000.2 gross tons 80 lb. steel rails, as follows:—

The Algoma Steel Company, Limited, 21,371 gross tons 80-lb. steel rails at \$40 per gross ton, f.o.b. cars at junction with the T. & N. O. Railway.

#### RAIL FASTENINGS.

The Montreal Rolling Mills Company, 1,370.5 gross tons steel splice bars at \$46.58 per gross ton—1,036.5 gross tons free on I.C.R. dock at Lévis, P.Q., and 334 gross tons free on Q. & L. St. J. Railway dock, Quebec, P.Q.

The Nova Scotia Steel and Coal Company, 869.2 gross tons steel splice bars at \$48.16, deliveries as follows:—

200.6 gross tons, f.o.b. cars, Moncton, N.B.

200.6 " Edmundston, N.B.

214 " Moncton, N.B.

254 " Edmundston, N.B.

The Hamilton Steel and Iron Company, Limited, 1,137 gross tons steel splice bars at \$52.64 per gross ton fob cars at junction with the T. & N. O. Railway.

The Gananoque Bolt Company, Limited, 346.5 tons track bolts and nuts, as follows:—

27 tons f.o.b. cars I.C.R., Moncton, N.B., at \$3.60 per 100 lbs.

27 tons f.o.b. cars Edmundston, N.B., at \$3.68 per 100 lbs.

76.5 tons free on I.C.R. dock, Lévis, P.Q., at \$3.56 per 100 lbs.

29 tons f.o.b. cars I.C.R., Moncton, N.B., at \$3.59 per 100 lbs.

34 tons f.o.b. cars Edmundston, N.B., at \$3.73 per 100 lbs.

77 tons f.o.b. cars at junction with the T. & N. O. Railway, at \$3.70 per 100 lbs.

76 tons f.o.b. cars at junction with the T. & N. O. Railway, at \$3.75 per 100 lbs.

The Montreal Rolling Mills Company, 108 tons track bolts and nuts, as follows:—63 tons free on dock, Lévis, P.Q., at \$3.68 per 100 lbs.
45 tons free on dock, Quebec, P.Q., at \$3.68 per 100 lbs.

The Montreal Rolling Mills Company, 1,093.2 tons steel track spikes, as follows:—

97.9 tons f.o.b. cars at Moncton, N.B., at \$2.44½ per 100 lbs.

97.9 tons f.o.b. cars Edmundston, N.B., at \$2.48 per 100 lbs.

277.4 tons free on dock, Lévis, P.Q., at \$2.34 per 100 lbs.

104.5 tons f.o.b. cars Moncton, N.B., at \$2.44\frac{1}{2} per 100 lbs.

124 tons f.o.b. cars Edmundston, N.B, at \$248 per 100 lbs.

228.5 tons free on dock, Lévis, P.Q., at \$2.34 per 100 lbs.

163 tons free on dock, Quebec, P.Q., at \$2.34 per 100 lbs.

The Hamilton Steel and Iron Company, Limited, 555 tons steel track spikes, at \$2.73 per 100 lbs., f.o.b. cars at junction with the T. & N. O. Railway.

#### RAILWAY TIES.

District F.—David L. Mather, Kenora, Ont., 157,200 railway ties for delivery along the line from three miles east of the eastern boundary of the province of Manitoba, thence easterly in such quantities as to furnish 3,000 first-class ties per mile of track. Price, 65c. per tie. Second-class ties not to exceed more than one-fifth of whole.

District F.—Porter Preston Elliott, Fort Frances, Ont., 50,000 railway ties, 65 pein cent first class. Price, 70 c. first-class and 64.3c. second class, f.o.b. cars St. Boniface, Man.

District F.—Edouard Guilbault, St. Boniface, Man., 25,000 railway ties at 75c. each, f.o.b. cars St. Boniface, Man.

District F.—Eastern Construction Company, Ottawa, Ont., 300,000 railway ties, 60 per cent first class, 40 per cent second class, for delivery between the junction of the Thunder Bay branch of the Grand Trunk Pacific Railway with the Transcontinental Railway, westerly to the 82nd mile in such quantities as to provide 3,000 first-class ties per mile. Price, 60c. first class and 55c. second class.

After advertising on three different occasions for tenders for railway ties, and having failed to obtain tenders for the full requirements, it was found necessary to send an agent out over the Canadian Northern and Canadian Pacific Railways between Fort William and Winnipeg, with instructions to ascertain the best prices at which ties could be purchased, and to report the result to headquarters. In this way it was possible to close contracts, with the sanction of the Governor in Council, for from 125,000 to 150,000 railway ties, as follows:—

John Thomas Horne, Fort William, Ont., 50,000 railway ties, 65 per cent first class. Price, 78c. first class and 67c. second class, f.o.b cars St Boniface, Man.

Joseph E. Tempest, 25,000 railway ties, 70 per cent first class. Price, 75c. first class and 67c. second class, f.o.b. cars St. Boniface, Man.

The Rat Portage Lumber Company, 50,000 to 75,000 railway ties, first class 80c., second class 70c., f.o.b. cars St. Boniface; or first class 78c. and second class 68c., f.o.b. cars Rennie station, Man.

The contracts for the mill and shop inspection of the material and workmanship for bridges have been awarded to the Canadian Inspection Company, Montreal, for the price of 45¢, per ton of 2,000 lbs. This company has also been awarded contracts for the inspection of the steel rail fastenings for the price of 20¢, per ton.

The contracts for the inspection of the steel rails have been awarded to the Standard Inspection Bureau, Limited, Toronto, for the price of 5c. per ton.

Attention is directed to the statements annexed to this report showing the details of the expenditure during the fiscal year.

The whole respectfully submitted.

C. F. McISAAC, ROBT. REID, C. A. YOUNG, S. N. PARENT,

Chairman.

The Commissioners of the Transcontinental Railway, Ottawa, Ont.

SIRS,—I beg to submit the following report of the progress of the work under my charge for the fiscal year ending March 31, 1908:—

## DISTRICT 'A.'

Surveys.—Five parties were engaged on revision and location, or testing foundations for structures, for the first seven or eight months, when most of the staff composing these parties was transferred to construction, or utilized in making right-of-way surveys between Grand Falls and Chipman, N.B.

Construction.—A contract for construction of about eight miles from the 50th to 58th miles west of Moncton was awarded to the John W. McManus Company, Ltd., on the 23rd August, 1907, and on the 28th of March, 1908, contracts were awarded as follows:—

From mile 58 to mile 97.7, to the Grand Trunk Pacific Railway Company.

From mile 165.7 to a point 2½ miles west of Grand Falls, a distance of about 31.5 miles, to the Willard Kitchen Company, Ltd.

These contracts, together with those mentioned in my previous report, cover all the work in New Brunswick.

Information as to the distribution of the engineering staff, progress of the work and weather conditions, will be found in the accompanying report from Mr. Guy C. Dunn, district engineer.

#### 'DISTRICT A.'

HUGH D. LUMSDEN, Esq.,

Chief Engineer, Transcontinental Railway, Ottawa, Ont.

Dear Sir,—Acting upon your instruction I herewith beg to submit the following general report of work done on this district from the 31st of March, 1907, to the end of the fiscal year, 31st March, 1908.

#### SURVEYS.

## Description of Work.

On the 1st of April, 1907, party 7, under Mr. Archibald Foster, was employed in making right-of-way surveys from Grand Falls to Edmundston, and making test borings over the same ground. On the 1st of May they commenced a revised location from the West Brock summit, east of the Tobique river, to the Intercolonial Railway north of Fredericton, arriving at this point the latter part of August, when they started back on their line running a final location, completing the survey on the 5th of December. Mr. Foster and assistants were then at work in the district office on plans, estimates and general work until the 1st of February, when he laid out and superintended construction of all buildings for the occupation of the resident engineers between Chipman and Grand Falls.

Party 12, under Mr. M. D. Finlayson, was employed on test drilling on divisions 1 and 5 until the 1st of November, when he took charge of residency 5, division 1.

Party 8, under Mr. D. F. Maxwell, was assembled the 20th of May, and commenced revised location from the crossing of the Intercolonial Railway north of

Fredericton and worked east to Chipman; arriving at this point they ran a final location to point of starting, which they completed on the 9th of January, when Mr. Maxwell was employed in the district office on plans, profiles, &c., until 1st of March, when he took charge of a small right-of-way party working from Chipman westward,

on which work was employed until the end of the year.

Party 2, under Mr. Hector McNeil, was assembled about the 20th of May, and commenced revised location at a point near Grand Falls eastward to a point a few miles west of the Tobique river. On reaching this point they ran in final location at point of starting, which they finished on 12th of December. This party was then reduced in numbers, the remaining members being employed on test borings, Mr. McNeil reporting on division 5 as assistant to division engineer, until the middle of March, when he took charge of party 4, and ran in a revision of the final location east of Chipman, on which work he was employed until the end of the year.

Party 5, under Mr. A. J. MacDonald, was assembled on the 26th June; started a revised location from a point west of the Tobique river, running easterly to West Brook summit. On arriving at that point they worked back over their line, running in a final location to a point of starting, which was completed on 3rd of November. Mr. MacDonald was then employed in the district office on plans and estimates until the 18th February, when he took charge of a small right-of-way party working from

Grand Falls east, at which work he was employed until the end of the year.

## TOTAL MILEAGE OF SURVEYS RUN BY PARTIES.

Manch	21	1007	-March	21	200E
March	ijΙ.	1907-	-March	ΘI,	Tano.

	Total to Mar. 31, 1907.	Total from Mar. 31, 1907, to Mar. 31, 1908.	Total to Mar. 31, 1908.
Exploration Prel. Lines. Abn. Pre. Lines. Prel. Location. Abn. Pre. Location. Rev. Location Abn. Rev. Location Final Location.	106·04 130·64 48·69	10·558 162·73 130·914	1936.50 $1880.31$ $332.86$ $598.368$ $106.04$ $293.37$ $48.69$ $256.427$

Total mileage through district, Moncton to Quebec boundary, 256,427.

As well as the contracts let, as mentioned in my last annual report, on the 23rd of August, a contract was made with Messrs John W. McManus Company, Ltd., for a distance of about eight miles westerly from the end of the contract of the Grand Trunk Pacific Railway Company.

Messrs. Lyons & White let the greater portion of their sixty-one miles to sev-

eral sub-contractors.

The Grand Trunk Pacific Railway Company, who sublet their work to Messrs. Corbett, Flæsch & Company in October, 1907, have returned the following amounts in estimates to 31st of March, viz:—

Grand Trunk Pacific Railway\$	110,707 72	3
Lyons & White		
John W. McManus Company	25,609 92	3

Less 10 per cent to be deducted at head office.

On the 1st of May, 1907, Mr. Horace Longley was appointed division engineer, Division 5, over that section of the road from Grand Falls to the Quebec boundary,

and on the 1st of June Mr. H. M. Balkam was appointed to a similar position in charge of the work westerly for fifty-eight miles over the contract awarded the Grand Trunk Pacific Railway Company and Messrs. John W. McManus Company, and resident engineers were appointed from time to time as follows:—

#### DIVISION 1.

H. M. Balkan, division engineer.

H. E. Como, resident engineer, residency 1.

J. R. Freeman, resident engineer, residency 2.

L. B. Ellitt, resident engineer, residency 3.

P. H. Smith, resident engineer, residency 4.

M. D. Finlayson, resident engineer, residency 5.

H. A. Ryan, resident engineer, residency 6.

#### DIVISION 2.

Horace Longley, division engineer.

R. F. Davy, resident engineer, residency 20.

A. R. Crookshanks, resident engineer, residency 21.

J. M. Millar, resident engineer, residency 22.

W. J. DeWolfe, resident engineer, residency 23.

A. B. Blanchard, resident engineer, residency 24.

P. B. Duff, resident engineer, residency 25.

On June 29, 1907, Mr. Alfred W. Fraser was appointed chief concrete inspector for the district, and the following land commissioners were appointed by the commission to purchase right-of-way over the territory required for construction, viz:—

David Allan, appointed May 25, 1907; resigned, October 15, 1907.

John Mullaly, appointed April 10, 1907; resigned, July 17, 1907.

D. J. Buckley, appointed April 10, 1907; resigned, May 20, 1907.

E. Lapointe, appointed July 10, 1907.

Belonis Nadeau, appointed July 10, 1907.

Nath. McLaren, appointed July 20, 1907.

O. L. Price, appointed April 10, 1907.

Z. E. Sloat, appointed April 10, 1907.

Victor Breau, appointed October 21, 1907.

Construction was commenced on the different contracts in the following order:-

#### WEATHER CONDITIONS.

The conditions during the summer of 1907, more particularly between Grand Falls and Edmundston, were abnormally wet, the greater portion of the summer rain falling six days out of ten, in July for twenty-six consecutive days. Progress therefore was greatly retarded and the amount of work that should have been done was not accomplished.

#### FOREST FIRES.

Although large areas of timber land have been destroyed by fire every summer in New Brunswick for the last three years, with the exception of the summer of 1907, none of those have been caused or started by the engineers, contractors or others connected with the Transcontinental Railway.

#### TRANSPORT.

Transport conditions existing on the district are similar to those as mentioned in my last report, Mr. Frank W. West, district purchasing agent, taking charge of all transposts going out from district office in addition to his purchasing duties.

#### CASUALTIES.

No fatal accidents or death of any kind has so far occurred in this district, and the health of the men engaged on the work has been for the most part good.

All of which is respectfully submitted.

GUY C. DUNN,

District Engineer 'A.'

#### DISTRICT 'B.'

Surveys.—Several small parties were employed during the year in revising location and securing information as to flood levels of the various streams, foundations for structures and other necessary information for the designing of suitable structures.

Construction.—Fair progress has been made with the work under contract, especially towards the close of the year, when men became more plentiful and wages lower than heretofore.

On the 29th of March, 1908, a contract was awarded to Messrs. M. P. & J. T. Davis for the construction of about 52.4 miles from, at or near the New Brunswick and Quebec boundary westerly. This contract completed the general contract work in district 'B,' with the exception of the entrance into Quebec from the Quebec bridge.

The following is a report from Mr. A. E. Doucet, district engineer:—

#### DISTRICT 'B.'

Hugh D. Lumsden, Esq.,
Chief Engineer, Transcontinental Railway,
Ottawa, Ont.

SIR,—I note below, for your information, a short annual report covering the work carried on in my district from the 31st of March, 1907, to the 31st of March, 1908.

Since the 31st of March, 1907, the location parties have completed their work and the rechaining has been carried through from the New Brunswick boundary to Weymontachene, a distance of 403 miles. We have but one small party in the field revising the final location near the latter place, and securing further information as to flood levels and conditions of the flow of ice in order to provide sufficient waterway when designing the bridges over large rivers and culverts over the smaller water courses.

The final mileage in my district is now as follows:—

#### LAND SURVEYS.

One land surveying party is still at work completing the plans and books of reference near the New Brunswick boundary. A second is employed correcting errors in the original surveys of properties and making plans of additional lands required for the purpose of the railway.

#### ORGANIZATION OF CONSTRUCTION STAFF.

That portion of the line now under active construction is divided into eight divisions, subdivided into twenty-seven residencies. Including our headquarters staff, division and resident engineers and their employees, concrete, tie and timber inspectors, land survey and bridge parties, material clerks, &c., we now employ 297 men.

#### PURCHASE OF RIGHT OF WAY.

The purchase of the land necessary for our right of way is progressing very satisfactorily, most of the land owners accepting our terms.

#### TRANSPORT.

Owing to the advanced state of the work, the question of transport is now a comparatively easy one. From the New Brunswick boundary to La Tuque roads are built over which supplies can easily be carried by teams in the winter. On that portion of the line west of La Tuque, where no summer roads are available, we have cached sufficient supplies to last our engineers till the winter roads are again opened up in 1908-9.

#### CASUALTIES ON ENGINEERING STAFF.

I am happy to state that there have been no fatal accidents to our district employees during the year. A few cases of typhoid fever have taken place, but those so attacked have recovered, but they are not important enough to require special attention.

#### CASUALTIES ON CONSTRUCTION.

Among the contractors' employees, however, several accidents have, I am sorry to say, taken place, but considering the large number of men employed and the well known carelessness of men perfectly accustomed to the use of dynamite, the wonder is that so few fatalities have to be recorded. The following list comprises the names of those who have met their death through blasting or directly due to accidents of construction during the year:—

#### On Messrs. Macdonald & O'Brien's Contract.

March 26, 1907. C. Helgerson. Explosion.

August 20, 1907, O. Philippe. Explosion.

September 19, 1907, F. Doherty. Attending steam shovel.

November 9, 1907, N. Beaton. Attending construction train.

February 11, 1908. A. Simione. Explosion.

#### On Messrs. M. P. & J. T. Davis Contract.

October 17, 1907, J. Lachance. Thawing dynamite.

January 25, 1908, Jas. Groves. Crushed in rock slide.

December 20, 1907, Ignatio Pugliano. Crushed against car by quantity of frozen earth falling on him.

#### CONSTRUCTION.

The whole mileage throughout district 'B' is now under contract, the last 53 miles from the New Brunswick boundary westwards having been awarded in March

last. Of the remaining 349 miles active operations are being carried on 312 miles. The contractors of the Grand Trunk Pacific have found it impossible to put in sufficient supplies to start operations on the last 37 miles near Weymontachene at the western end of the district.

There are now working in my district the following number of men and teams:—

	Miles.	Men.	Horses.
On M. P. & J. T. Davis' contract	200	2,447	522
On Macdonell & O'Brien's contract		2,010	278
On Grand Trunk Pacific Railway's contract		751	72
Totals		5,208	872

The work of construction has progressed steadily throughout the year. Since the autumn of 1907 labour is more plentiful, of a superior class and the wages paid are now on more reasonable terms than formerly. Cement for the season's use has been safely stored in various places, so that our concrete structures will not be a cause of delay to the grading and track laying. The only concrete work done this winter is that the St. Maurice river bridge above La Tuque, where it was found advisable to do the caisson work and concrete work to water level whilst the river was frozen over. Every precaution has been taken to assure the stability and reliability of this important structure.

#### RBIDGE SUPERSTRUCTURE.

The only steel bridges erected to date are those of the Batiscan river, mile 65½ west of Quebec, and a small highway bridge at mile 71¾, also west of the Quebec bridge. The concrete work of several other large bridges, including the Etchemin, St. Anne's, Charest, Big Bostonnais, Croche and Au Lait rivers, is now completed and the bridge companies will be kept hard at work erecting the superstructures at these various points during the present year.

#### TRACK LAYING.

From the Quebec bridge westerly, on the Davis' contract, 6 miles of main line track have been laid; from Hervey Junction easterly, 7 miles, and from Hervey Junction westerly, 18 miles have been put in. A beginning has also been made at La Tuque, one mile of track being in place at this point. As soon as the snow disappears the contractors will at once resume track-laying operations, and by the fall of the year we shall have a considerable mileage of track laid and ballasted.

On the south side of the St. Lawrence track-laying will also be done from St. Anselme, both east and west. Messrs. M. P. & J. T. Davis will have four and Macdonell & O'Brien six steam shovel outfits at work during the season.

We have delivered to date rails and fastenings as follows:—

St. Anselme, County Dorchester	. 102	mls. rails	and fastenings.
Belair, County Portneuf			66
St. Basile, County Portneuf	. 22	66	66
Hervey Junction, County Portneuf	. 90	66	66
La Tuque, County Champlain	. 37	66	66
Total.	276		

#### FENCING.

A suitable railway fence is being built wherever required, and 53 miles of this fence have been erected to date.

#### TELEGRAPH LINE.

The erection of our telegraph line is kept up with the track laying. This line is being used by the contractors for the operation of their construction trains.

In conclusion, I wish to state my indebtedness to my assistants and staff for the loyal help they have given me throughout in carrying out this important work to a successful issue.

A. E. DOUCET,

District Engineer 'B.'

## DISTRICT 'C.'

Surveys.—There were six survey parties in the field during the summer months on first location, revision and final location. They were all disbanded in December and January. In the middle of January a party was sent out to the western end of the district to take borings and soundings for foundations of structures, and depths of muskegs, and are still employed. As soon as the ice goes several parties will be employed in completing surveys.

Construction.—No work has yet been done on the westerly forty-six miles under contract by the Grand Trunk Pacific Railway Company, and no other contracts have as yet been let in this district.

The following is a report from A. N. Molesworth, district engineer:—

## DISTRICT 'C.'

HUGH D. LUMSDEN, Esq.,

Chief Engineer, Transcontinental Railway, Ottawa, Ont.

DEAR SIR,—In accordance with instructions I have the honour to submit the following report of work carried on in district 'C' from the 31st of March, 1907, to the 31st of March, 1908.

On the 31st of March, 1907, most of the preliminary surveys had been finished and all the first location, except 51·20 miles, but only 92·19 miles of revised location and 15 miles of final. Since that time the first and revised locations have all been completed, and all of the final location, except 106 miles. We have now a very good line located over the whole district and have shortened the distance by several miles. On the 106 miles, which has not yet been finally located, is found the heaviest work on the district, the country being rough and broken. In the final location this season we hope to materially improve this portion of the line.

Party 1a, in charge of S. G. Smith, revised the location from Weymontachene westward for a distance of 40.44 miles to Menjobagus lake, which they completed by the 1st of January, 1908, when the party was brought in and disbanded. On this revision Mr. Smith made some very important changes in the line, which reduced the cost materially.

About February 1, I sent Mr. Smith back to Weymontachene with a small party to take borings and soundings in all the streams and deep muskegs, and he is still engaged on that work.

Party 2, in charge of E. B. Haycock, commenced locating from Menjobagus lake westward about April 1, 1907, and continued until they reached Susie river, a distance of 65 miles. At the end of August Mr. Haycock resigned and Mr. I. J. Steel took charge, finishing the location to Susie river in the middle of December, 1907, when the party was brought in and disbanded.

Party 3a, in charge of A. L. McDougall, ran revised location over the same country where Mr. Steel was running first location, viz.: from Menjobagus lake to Susie

river. He made a great improvement in the location, running an alternative line for a distance of 33.6 miles on which he gets a summit 150 feet lower, 645 less curvature and a saving of over \$300,000 in cost. Mr. McDougall completed his revision on January 25, 1908, when he brought his party in and they were paid off.

Party 4, in charge of I. J. Steel, commenced final location at Susie river in the spring of 1907, running westward to a point near Millie lake. At the end of August Mr. Steel was sent to take charge of party 2 from which Mr. Haycock resigned, and Mr. A. H. Greenlees finished final location to Millie lake in December, 1907, when party was brought in and disbanded.

Party 6, in charge of W. D. Robertson, continued final location westward from Millie lake, reaching the west end of the district about December 1, 1907, when the party was brought in and disbanded. Mr. Robertson improved the line very much in places, particularly in the vicinity of Bell river.

Party 8, in charge of N. Tooker, was revising location from the west end of district to the Hurricanaw river on the 1st of April, 1907, which he finished the 12th of June, 1907. He then moved his party over to Millie lake, revising the line which Mr. Robertson had finally located in the winter as far as Cedar creek, a distance of 32 miles. As the balance of Mr. Robertson's location was done in the summer, it was not necessary for Mr. Tooker to run any further, and his party was disbanded in the last week in September.

On the 15th of January, 1908, Mr. Tooker was sent to western end of district with a small party to take borings and soundings in all streams and muskegs, and he is still engaged at that work.

The contract which was awarded the Grand Trunk Pacific Company in March, 1907, covers a distance of 46.32 miles in this district in place of 42 as mentioned in my last report, owing to the line being shortened in district 'D.' No work has yet been done on this contract.

#### TRANSPORT SERVICE.

The transport service on district 'C' has been well carried out during the past year, all parties in the field being fully supplied at all times. On the west 46 miles of the district, on which contract has been let, Mr. B. R. McDougall, transport officer, has erected houses for the engineers who will have charge of the construction.

#### CASUALTIES.

I regret to have to report three deaths by drowning and two by illness during the past year.

John W. McDonald, Joseph and Rod. McDonald, axemen on party 6, were drowned through the upsetting of a canoe on May 28, 1907, in Bell river, the bodies being recovered three weeks afterwards and brought out for burial during the winter of 1908.

Frank Foote, cook, party 2, died at East Cache on the Gatineau division on the 3rd June, 1907, after a severe attack of meningitis caused by the disease of the ear. His body was buried at camp 2 on the west fork of the Gatineau river, and afterwards brought to Ottawa for burial during the winter of 1908.

Frank Canoe, Caughnawaga Indian, engaged on transport service, died at Kenojevis cache after a short illness. Our medical officer at that point was in attendance His body is buried near the cache.

REPORT AND DESCRIPTION OF LINES RUN FROM APRIL 1, 1907 TO MARCH 31, 1908.

Party.	Explanation.	Preliminary.	1st Location.	Revised Location.	Final Location.
1a	21.00 $17.10$ $19.10$ $6.00$ $110.00$		51.20	44.50 $65.71$ $24.60$ $19.80$ $53.65$	59·35 72·51 18·03
Total	173 · 20		51.20		149.89

A. N. MOLESWORTH,

District Engineer 'C.'

## DISTRICT 'D.'

Surveys.—Four parties were employed on location and revision surveys during the summer season. These, however, were disbanded before the close of 1907, most of the members of the parties being transferred to construction or work in connection therewith.

Construction.—Owing to the shortening of the line in this district on final location, the actual mileage under construction in the district has been decreased over two miles, but this causes a similar increase in the mileage in district 'C.'

Very little work has been done on the 103.65 miles under contract, which was awarded to the Grand Trunk Pacific Railway Company in March, 1907.

On the 28th of March, 1908, a contract was entered into with Messrs. E. F. & G. E. Fauquier for the construction of 100 miles from the 103.65 mile westerly to the 203.65 mile.

The following is a report from Mr. John Aylen, acting district engineer:—

Hugh D. Lumsden, Esq.,
Chief Engineer,
Ottawa, Ont.

DEAR SIR,—I beg to submit the following report on the work carried on in district 'D' from April 1, 1907, to March 31, 1908.

#### SURVEYS.

The work of location was carried on by four parties, numbered according to their position in the district from the east end westerly, 2, 4, 5 and 6.

Party No. 2, Mr. Frank Moberly, engineer in charge, having been disbanded in March, 1907, was reorganized in May, 1907, was instructed to lay down the final location from district mileage 52, which is a point on the north shore of Lake Abitibi easterly to the district here. The party completed a location covering this distance by the end of September and was then disbanded. This location follows closely the revised location of party 5, south of Makimik lake, run during the winter of 1906-7, giving in places an improved profile.

Party No. 4, Mr. E. P. Goodwin, engineer in charge, in the beginning of April, 1907, ran a trial location of about 7 miles from Abitibi river easterly to determine the suitability of a crossing of this river about three-quarters of a mile south of the crossing fixed by the location of 1906. This trial location, together with levels taken

by party 5, along the concession lines on the west side of Abitibi river, showed that an improvement could be made in the line by leaving the location of 1906 at or near Mistongo river, at mile 78, crossing the Abitibi river three-quarters of a mile south of the crossing fixed by the location of 1906, and keeping in a westerly course to the south of Commando lake. The party commenced the final location of this line at Abitibi river, mile 95, and ran easterly to mile 42, revising the location of party 2 of 1907, for about 10 miles, from mileage 52 to 42. This work was completed early in October. The party returned to Low Bush river and revised its location for about 5 miles, improving the crossing of the Circle and Low Bush rivers, and avoiding a crossing of a bay of Abitibi lake. On November 18 the party was sent to Whitefish river and commenced a revision of the location of party 2, from mileage 17 to district Zero. On the completion of this work it was disbanded in December, 1907. The axemen were organized as a building gang to erect buildings for resident engineers. The location finally adopted, and on which the work of construction is proceeding from zero to mile 95 at Abitibi river, is the revised location by party 4 from zero to mile 17; the final location by party 2 from mileage 17 to 42, and the above described location of party 4 from mileage 42 to 95.

Party No. 5, G. F. Hanning engineer in charge, in April and May ran a trial location from the adopted crossing of the Abitibi river westerly by the south side of Commando lake. It returned to the Abitibi river and commenced in June a final location from this river westerly to Mettagami river. This location has been adopted from mileage 95 to 135, and the work of construction is proceeding on part of it. From mile 135 it continued a location westerly to mile 141 at Poplar Rapids river, where party 6 had commenced a location running westerly and skirting the north shore of Departure lake. Party 5 moved west on this line of party 6 to mileage 147, and commenced an alternative location running easterly from mileage 147 to 135, crossing Poplar Rapids river 1.5 miles north of the crossing fixed by party 6. This alternative location shows an improvement of the line. It deflects to the north to pass a ridge of rock at the north end of Departure lake, the other location passes this ridge by deflecting to the south. The alternative location is longer, but the difference in the work more than compensates for the additional distance. This work was completed by the end of September. The party then moved east to Mettagami river and revised 11½ miles of its location from mileage 123½ to 135, placing the line in a better position on the side hill approaching Mettagami river from the east. On completion of this work the party was disbanded in November. Part of the force was organized to work a boring machine to determine the character of the material at the site of the structure.

Party No. 6, Mr. A. F. Cotton, engineer in charge, was organized in June and went north to the Transcontinental Railway line from Bisco on the Canadian Pacific Railway, following the Mettagami route. It commenced work at Poplar Rapids river, mile 141, in July, and revised the location westerly to Kapuskasing river at mile 173. Several trial locations across the Ground Hog river were run, but the crossing as fixed by Mr. Robert Laird, in February, 1907, has been found so far to be the most feasible. The party was disbanded in November. The location follows closely that of the preceding year, but gives a generally higher profile. Mr. Cotton and part of his staff were engaged in the office at North Bay for the remainder of the term covered by this report.

There is attached hereto a tabulated statement of the mileage and classification of the lines run by these parties during the year.

Boring gang.—From May 20 to the end of August, 1907, a party was engaged under Mr. C. H. Morse testing the material at the site of the bridges from Abitibi river easterly to the end of the district. This was done by sinking a pipe driven by a boring machine and aided by a stream of water. From Abitibi river westerly to

Mettagami river, mile 195 to 135, work of the same character was carried on from the beginning of November, 1907, to February 28, under Mr. S. A. Desmeules.

Building gangs.—A building gang was organized January 1, 1908, to put up buildings for engineers on division 2, and worked on residencies 4 and 6 to March 31. A like gang has been engaged since August 10, 1907, putting up buildings for engineers on residencies 9, 8 and 7. Two other building gangs were organized on March 1, 1908, and are putting up buildings for engineers west of the junction with the T. & N. O. Railway. They are working at Frederickhouse river and at Mettagami river, miles 109 to 125. These gangs average about eight men each.

Location.—The favourable character of the country has enabled an exceptionally good location to be laid down. There are no curves sharper than 3, and there are only six 3 curves in the 247 miles. The steepest grade opposed to eastbound traffic is  $\frac{2}{10}$  of one per cent, and opposed to westbound traffic  $\frac{6}{10}$  of one per cent; on curves the ruling grades are flattened to compensate for the additional resistance due to the curvature. The grade attains its highest elevation at the east end of the district, where it is 999 feet above sea level, and its lowest elevation at Lost river, 181 miles to the west, where it is 726 feet; between these elevations it undulates throughout the district.

The bridging is a considerable part of the construction. The line traverses the country in a direction nearly at right angles to the trend of the rivers. For the first 70 miles the drainage is southerly to Abitibi lake, which has a length of 44 miles and a maximum width of 18 miles. The line touches the north shore of the lake at mile 50 and again at mile 60. It crosses several tributaries of this lake, three of which can be ascended from the lake to the line by boats of three feet draught, and by the improvement of bars at the mouth of these rivers the draught can be increased. At mile 78 it crosses a small tributary of Abitibi river flowing in a deep valley requiring a viaduet of 1,065 feet long. From mileage 94 to 215 it crosses, besides small streams, seven rivers of considerable size, being 250 to 800 feet wide, and spaced from 14 to 25 miles apart, all flowing northerly in a direction nearly at right angles to the line. There will be about 8,400 lineal feet of permanent bridges and viaducts in the 247 miles.

#### LAND AND TIMBER.

The line traverses a region of good agricultural land, the soil being for the most part clay and loamy clay, though ridges of gravel and sand are met with in an occasional ridge of rock. There are marshes and swamps of considerable extent that need an additional drainage, but there is little of what can be called muskeg in the ordinary acceptance of the term. The soft saturated material of the marshes is not deep and is underlaid with clay. The largest timber is found along the streams and inland on the ridges. It is chiefly white spruce, poplar, Balm-of-Gilead and birch. This timber ranges from the size of pulp wood to 30 inches in diameter, many of the white spruce trees attaining a height of 90 to 100 feet. On the sand and gravel ridges, prevailing timber is jackpine, much of which is suitable for ties. The timber of the swamps consist of black and white spruce, tamarack and cedar, most of the spruce being suitable for pulp wood. The tamarack is dead, having been killed by the larch fly. The cedar attains a fair size in places, but there is not much of it.

#### CONSTRUCTION.

On March 14, 1907, a contract was entered into with the Grand Trunk Pacific Railway Company for the construction of 150 miles of the road, of which 103.65 miles is in this district and the remainder in the adjoining district to the east. The contracting company sublet the work; the clearing to Messrs. Rogers & O'Brien, and the rest of the work covered by the contract to the J. H. Reynolds Construction

Company. The representatives of the construction company arrived in October, and after looking over the work began the construction of camps and the cutting of roads. The yestablished their headquarters at McDougall's chutes on the Temiskaming and Northern Ontario Railway, which is also on the bank of the Black river, a tributary of the Abitibi. They have established a camp at Mistongo river, mileage 78, and at Abitibi river crossing, mileage 95. They have a winter road from mileage 62 to 103 along the right of way, and a winter road from McDougall's chutes to Abitibi lake, about 27 miles, for 16 of which it follows closely the road cut by the commissioners, but which has been improved.

The officials of the construction company inform me that it is their intention to put in supplies by boats and scows, and that they are only putting in a limited quantity this winter, sufficient to carry on the work until more can be delivered by water; that their company has entered into a contract with Messrs. R. & T. Walsh to transport supplies from McDougall's chutes to Abitibi river crossing and to Abitibi lake, and to all points on the line that can be reached by steamers. Messrs. R. & T. Walsh are building steamers and scows at Abitibi lake for this service. The navigation of part of Abitibi river will be difficult, but the construction company is confident that it can run a line of boats successfully from McDougall's chutes to Abitibi river crossing and to Abitibi lake by putting in tramways to transfer the freight at three chutes.

The value of the work performed under this contract with the Grand Trunk Pacific Railway Company to March 31, 1908, was \$19,234, most of which is for clearing.

On March 28, a few days before the end of the year covered by this report, a contract was entered into with Messrs. E. F. & G. E. Fauquier for the construction of 100 miles of the railway from mileage 103.65 to 203.65.

#### TRANSPORT.

The Northern Transfer Company under its contract of December 19, 1906, for the transport by teams of an approximate quantity of 130,000 lbs. of supplies from the end of the track on the T. & N. O. Railway to various caches of the commissioners, had delivered the supplies at points where they were taken over from the company in May, 1907. Owing to the breaking up of the roads part of the supplies were transported by water.

Two contracts were entered into with A. Devine, of North Bay, for the transportation of supplies by teams from the T. & N. O. Railway at McDougall's chutes to caches of the commissioners. The contract of December 20, 1907, for the transportation of an approximate quantity of 92 tons of supplies was carried out in a satisfactory manner. The contract of February 17, 1908, for the transport of an approximate quantity of 66 tons was not being carried out in a manner to insure the delivery of the supplies and the work was taken out of the contractor's hands on March 21, and is being carried on by the commissioners.

There were transported by canoes during the summer of 1907, from Canadian Pacific Railway line to the caches in the west end of the district, an average distance of 180 miles, 54,000 lbs. of supplies.

About 14,000 lbs. were removed last fall and winter chiefly by dog teams to equalize the supplies in the caches and to store supplies at points inaccessible by canoe, for the use of location parties in the summer. This work was carried on by the commissioners' men under the direction of the transport officer.

There are eight caches in the district which serve as centres from which to distribute supplies. In these caches there was stored on March 31, 1908, the approximate quantity of 175 tons. At these places very good vegetables are raised by the cachekeepers. At McDougall's chutes cache on August 29, 1907, a piece of land was sown to winter wheat and winter rye. Three varieties of wheat were put in and one

of rye. For the seed we are indebted to Dr. Saunders of the Central Experimental Farm. When the winter set in the grain looked well.

Up to March 31 six residencies had been organized, being Nos. 3, 4, 6, 7, 8 and 9, the engineers being respectively Messrs. E. Irvine, V. E. A. Belanger, C. H. Morse,

H. R. Wade, C. H. Cummings and Geo. Butler.

In December, 1907, Mr. G. F. Hanning was appointed division engineer of division 3, and in January, 1908, Mr. E. P. Goodwin was appointed division engineer, division 2, which covers residencies 4, 5, 6 and 7, and he was put in temporary charge of division 1.

Mr. S. R. Poulin had been district engineer from June, 1905, to the beginning of October, 1907, and the writer assistant district engineer. On the latter date Mr. Poulin was transferred to district 'F.' and the writer appointed acting district engineer of district 'B.'

Mr. W. A. Nelles was added to the permanent staff of the office in December,

1907, as assistant accountant.

#### ACCIDENTS.

During the year we lost one man, Geo. Lecours, canoeman on the transport service, who was drowned in the Buck Deer rapids of the Abitibi river on October 21. Two canoes were proceeding down the river in charge of Mr. S. F. McGrath, transport foreman, and on reaching the Buck Deer rapids the foreman's canoe went ahead, the other canoe, in which Geo. Lecours and Robert Mustard following Lecours' canoe turned in the rapids and struck broadside on a projecting log and sank. Lecours jumped on to the log, but by the time Mustard was taken from the river Lecours had disappeared. Diligent search has been made for the body, but until the ice goes there is little chance of it being recovered.

The following is a table showing the mileage and descriptions of lines run by

the different parties from April 1, 1907, to March 31, 1908:—

Party.	Exploration Lines.	Preliminary Lines.	1st Location Lines.	Alt. 1st Location Lines.	Rev. Location Lines.	Final Location Lines.
2	$32.5 \\ 24.9 \\ 54.7$	22 7		7.0 8.0 5.2 20.2	39.0 $11.$ $25.7$ $32.0$ $107.7$	23.0 70.0 42.0

JOHN AYLEN,
Acting District Engineer, 'D.'

#### DISTRICT 'E.'

Surveys.—From the following report of Mr. T. S. Armstrong, district engineer, it will be seen that three parties were employed on surveys in this district, and final location was practically completed by October, when the parties were disbanded, but one or two alternative lines have since been suggested, which will be tried as soon as the spring opens.

Construction.—On the 28th of March, 1908, a contract was awarded to Messrs. E. F. & G. E. Fauquier for the construction from a point about 19½ miles west of the crossing of Mud river easterly for a distance of 75 miles.

Hugh D. Lumsden, Esq.,

Chief Engineer, Ottawa, Ont.

DEAR SIR,—I have the honour to submit the following report of the work carried on in district 'E' from April 1, 1907, to March 31, 1908.

The mileage covered in this report is from mile 0 east end of the district, five miles east of the Kebinagagami river, to mile 258 west end of the district on the height of land, which divides the waters flowing into Lake Nipigon from those flowing into Hudson bay.

The final location was completed across the district on October 5, 1907.

On April 1, 1907, there were three parties in the field.

Party No. 1, in charge of Mr. A. McLellan, was at the Pegutchewan river, crossing mile 60, April 1, 1907, working west on final location; considerable improvement being made at this crossing over revised location, the grade being lowered 27 feet, the length of the line shortened 4,000 feet and 80 of curvature taken out.

After considerable improvement along the line the party reached Robinson lake, through mileage 176.45, on October 5, and connected with final location started by party 4. The party then came out and was disbanded.

On January 23 party was reassembled and sent out to make some revisions of line, and on March 31 was still at work.

Party No. 3, in charge of Mr. A. V. Redmond, were at Mountain lake, through mileage 195, on April 1, 1907, working west on revised location. July 1 Mr. W. P. Wilgar, who had been on leave of absence, returned and took charge. The party finished revised location to west end of district, through mileage 258, the end of July, and started running east on final location connecting with the final location of party 4 September 30, 1907. The party then came out and was disbanded.

Party No. 4, in charge of Mr. J. S. Tempest, were working east on revised location, April 1, 1907, and were 11 miles east of Robinson lake. They ran east to Kawakashagma river, a distance of 24.45 miles, and after the break up moved to Robinson lake and started final location, running west, and finished on September 21 at through mileage 223. Party then moved out and was disbanded.

## WORK DONE BY DIFFERENT PARTIES.

Party.	Exploration Lines.	Preliminary Lines.	Revised Location Lines.	Final Location Lines.	Alternative Location Lines.
1	4.00	60.18	7.60	116.45	19.00
3	101.70	64.10	65 30	35.00	1.50
4	• • • • • • • • • •	31.99	24.45	46.44	
	105.70	158.27	97.35	197.89	20.50

I may say that considerable reductions were made in quantities throughout the district and the line improved.

Grades do not exceed for running east and for running west.

There are no curves exceeding 4 or 1,433' radius.

There are now 12 caches on the district, one having been abandoned last fall, the supplies being placed in other caches. Last June they were provisioned for one year. The transport of these supplies was let by contract, and the work very satisfactorily carried out. The supplies needed for the coming year have been received, and transported by sleigh to Lake Nipigon, ready for distribution on the opening of navigation.

A weekly mail service was provided last summer to parties and caches within reach of Lake Nipigon, which gave good satisfaction. During the winter months the mail was carried to the caches by dog teams.

I am glad to report that there were no deaths or severe accidents during the past year. In November the services of Medical Officer Dr. Bryan were dispensed with,

as all the parties were disbanded.

Only one bush fire was reported in the district last year, northeast of Lake Nipigon. This is supposed to have been started by Indians, but did not originate near our line of survey. The weather last year was very exceptional, the ice on Lake Nipigon not breaking up till June 16. On May 31, at Jackfish lake, the snow was two feet deep and did not disappear until June 5. The summer was unusually wet and cold, which, to an extent, delayed the work of the parties in the field.

T. S. ARMSTRONG,

District Engineer, 'E.'

## DISTRICT 'F.'

Surveys.—From the accompanying report of Mr. S. R. Poulin, district engineer, it will be seen that three survey parties were out in June to revise portion of the location and complete final location between the east end of the district and Lake Superior junction near Pelican falls.

Party No. 2, under Mr. H. J. Mackenzie, was disbanded in January, the other

two parties being still in the field.

In the latter part of September it was considered advisable to make a change in district engineers, and Mr. S. R. Poulin was appointed to the position, replacing Major A. E. Hodgins (Mr. C. O. Foss acting with Mr. Poulin for the first two weeks).

Construction.—Since November construction has been proceeded with much more satisfactorily, owing to the labour being more plentiful and wages lower than here-tofore.

Hugh D. Lumsden, Esq., Chief Engineer, Ottawa, Ont.

DEAR SIR,—I have the honour to submit the following report on location and construction in district 'F' from the 1st of April, 1907, to the 31st of March, 1908.

#### CONSTRUCTION.

The work under contract to the J. D. McArthur Company from Winnipeg eastward to Lake Superior junction has made very good progress, especially during the last six months. At the first of the year the work was retarded on account of the unusually wet summer and the difficulty of procuring men. Labour was very unsettled and the highest wages did not seem to attract the workingmen. In October and November, however, a great change took place. The closing of summer work in the west and in the western states caused a great influx of labour to come to Winnipeg, and the contractor and subcontractors were enabled to procure sufficient force to man all their work, the wages coming down to the normal scale of 17c. and 20c. per hour for common labour. This, taken with the exceptionally fine winter we have had, seems to have put new life in the work, and the progress has been more satisfactory, the monthly estimates increasing gradually since October until the end of March, when same was nearly double that of September, 1907.

The work of construction having been divided into five divisions, I shall take

them separately, commencing at Winnipeg.

Division No. 9.—The first division east of Winnipeg on account of the prairie section is the longest—75 miles. The grading on the same is practically completed

and will be finished by June 1.

The track is laid eastward from Winnipeg to the Whitemouth river, a distance of, say 53 miles, and the Canadian Bridge Company are now erecting the steel bridges over the Canadian Pacific Railway overhead crossing. As soon as that is completed they will put up the bridge over the Whitemouth river, and I expect track laying to be resumed about the 1st of June. The masonry for the said bridge is all completed. One lift of ballast has been given to a considerable portion of the track. There will be two ballast pits working shortly, so that the work of ballasting shall keep up to the track laying this summer.

Division No. 8.—The second division is 33 miles long. The work is heavy throughout, especially at the east end, and is all covered with men, some of the heavier cuttings working day and night. I expect track to be laid over the whole of this division by the end of August or September. This will leave five miles on the third division to reach the crossing of the Winnipeg river. The grading on that

portion will be finished and cause no delay.

Division No. 7.—At the Winnipeg river crossing the two abutments for the bridges are completed, and the foundations for the single piers are in. The masonry will be completed on July 1. This division is 50 miles long, and has the heaviest work, but is also well covered with men, and the track should be laid over the whole of it in 12 months.

Division No. 6.—The work on this division is also very heavy, but is fairly advanced. The subcontractors have taken in three steam shovels to place at the heaviest fills, and on the whole of the 46 miles the grading should be ready for track laying within 12 months.

Division No. 5.—The last 43 miles to the junction with the Grand Trunk Pacific Thunder Bay branch is all opened up. The work, though heavy in some places, is much lighter as it gets near the junction. Steam shovels have also been put in this winter to make some of the heaviest fills. At least 25 miles from Lake Superior junction westward will be ready for track laying in the month of October, and the balance of the division by the end of the year.

The contractors along the line have taken in almost enough supplies to last out the whole summer, especially in the heavy and bulky line, as well as sufficient amount of explosives, so that I do not anticipate any difficulties in keeping the work well covered with labourers.

I regret to report there have been a considerable number of accidents on construction. There have been forty-three deaths reported to me and forty-seven wounded in thirty-nine different accidents. The great majority of these accidents happened in the winter months, and it would appear that the method of thawing dynamite, and the using of the same in a semi-frozen state, accounts for the greater number of the accidents, while the men, though repeatedly warned to be careful, become very careless and do not seem to realize that their want of care jeopardizes the lives of their fellow workmen as well as their own.

The medical service along the construction has been very good, and I have heard of no complaints along the whole length of the line.

#### LOCATION.

The four parties in the field were disbanded in March, 1907, and three parties, Nos. 2, 5 and 6 were reorganized in June to run alternative lines, revise parts of location and complete the final location from the northwest end of Dog lake, mile 18, eastward of Lake Superior junction to the junction with district 'E.'

Party No. 6, under Mr. Bucke, ran a new line south of Dog lake as far east as mile 55, located the same and revised it. This, having proved a better line than the

north, has been adopted, and the same party under Mr. H. J. McKenzie is now completing the final location.

Party No. 10, under Mr. McKenzie, revised location from mile 55 eastward to mile 75, and then ran lines from Peninsula crossing eastward to Dog lake. This

party was disbanded in January.

Party No. 2, under Mr. Moffat, ran alternative lines from mile 118 eastward, connecting with location of district 'E' 12 miles east of the junction with said district. This was trying a cut-off across a rough country by keeping a few miles to the north. This line, though shorter by 1½ miles, has not proved as good as the south line and is abandoned. The part is now completing final location from Allan Water westward to Eight Mile lake. I expect these two parties will complete their work about the end of July.

The health of the staff and men on the survey parties has been good, and I am happy to report that there have been no acidents worse than a few canoe upsets

without any fatal results.

The transportation of supplies has been satisfactory, and our caches are sufficiently provisioned to supply the two parties in the field until completion of their work, my intentions being to send in fresh supplies in August and September next to meet the requirements of the engineers on construction.

I give you below a table showing the mileage of lines run by different parties

during the past year:—

Party.	Exploration Lines.	Preliminary Lines.	1st Location Lines.	Alt. 1st Location Lines.	Rev. Location Lines.	Alt. Final Location Lines.	Final Location Lines.
2		44.10	1.50		4.20	15.26	33.00
5	11.00	54.60	18.40		14.30	59.50	18.00
10	38.00	52.35	36.38	4.26	6.50		
	49.00	151.05	56.28	4.26	25.00	74.76	51.00

S. R. POULIN,

District Engineer, 'F.'

#### SURVEYS.

Surveys may be said to be completed, and final location made over the entire line, with the exception of some revisions of location in district 'C' and 'E,' and the location of about two and a half miles of the entrance into Winnipeg.

The following are the mileages from Moncton, N.B., to some of the principal

points according to latest information:—

	Miles.
To New Brunswick and Quebec boundary	256.61
To North abutment of Quebec bridge	460.45
To Weymontachene	656.83
To Quebec and Ontario boundary	956.74
To Abitibi river crossing	1,020.15
To Missanabie river crossing	1,138.46
To Mud lake (Lake Nepigon)	1,388-00
To Lake Superior junction (Pelican Falls)	
To Winnipeg river crossing	1,689.79
To Ontario and Manitoba boundary	1,715.03
To West branch, Red river (Winnipeg)	1,804.47

From the above it will be seen that the through distance from Moncton to Winnipeg has been reduced by over 13 miles from that estimated in my last report, and over 85½ miles as originally estimated.

#### TIES.

In the first two general contracts awarded, viz.: to Messrs. Hogan & Macdonell, district 'B,' and Messrs. J. D. McArthur and Company, district 'F,' neither track or switch ties were included, but these have been included in all subsequent contracts for construction.

I attach a statement showing the ties contracted for and delivered during the fiscal year.

#### RAILS AND FASTENINGS.

I attach a statement giving the names of the contractors, rate, tonnage, points and quantities delivered, and the value of all rails and fastenings received to the end of March, 1908.

#### BRIDGES.

The substructures for all bridges are being prepared by the general contractors, but the steel superstructures and decking are being furnished and erected under contract with the various bridge companies.

I attach a report from our bridge engineer, Mr. R. F. Uniacke, giving details of the progress of the work under his charge, together with a statement showing the location of the structures, mileage, contractor, estimated weight, prices, total estimated cost and amount paid on account of same to the 31st of March.

#### TRACK LAYING.

In district 'B' 32 miles in all have been laid, exclusive of spurs and sidings, viz.:—

Six miles in sections between the Quebec bridge and St. Basile, seven miles from Hervey junction easterly, eighteen miles from Hervey junction westerly, and about one mile in the vicinity of La Tuque.

In district 'F' about 53 miles of main line track have been laid from our junction with the Canadian Northern Railway in St. Boniface easterly, and, say, one-half mile at our crossing of the Canadian Pacific Railway near Rennie. There have been also about twenty miles laid in sidings, yards and spurs in this district.

#### CLASSIFICATION.

Objections were received from the assistant chief engineer of the Grand Trunk Pacific Railway Company by letters dated the 7th of October, 1907, 1st of November, 1907, 14th of February, 1908, 20th of February, 1908, and the 24th of March, 1908, in regard to classification allowed by us in various sections in districts 'B' and 'F.' These objections do not specify particular points or cuttings, but are general, and as soon as the weather will permit and specified points are mentioned, I propose to proceed to a settlement of any such differences as provided under clauses 7 and 4, 3 Ed. VII., chap. 71.

#### CASUALTIES.

The only fatal accident to men employed on the engineering staff was the drowning of Mr. Geo. Lecours in the Buckdeer rapids of the Abitibi river on the 21st of October, 1907.

In connection with construction, however, reports have been received of a large number of accidents to men employed by contractors, totalling eight men killed in

district 'B,' and forty-three men killed and forty-seven injured in district 'F,' nearly all these accidents being caused by explosives.

It appears that thawing or carelessness in using dynamite are the principal causes of accidents, and in spite of all warnings and instructions, it seems that men who have been handling explosives for years are frequently the very presons who thought-lessly do some careless act, resulting in their own death, and possibly in that of others employed with them.

#### QUEBEC BRIDGE.

The deplorable collapse of the Quebec bridge in August last has been a serious blow to portions of this road now under construction south and north of the St. Lawrence river, but it is to be hoped that at an early date the construction of this immense structure will be resumed and completed at as early a date as possible, it being the essential link in connecting Moncton and Winnipeg.

HUGH D. LUMSDEN, Chief Engineer.

OTTAWA, July 14, 1908.

Hugh D. Lumsden, Esq.,
Chief Engineer Transcontinental Railway,
Ottawa.

Dear Sir,—I beg to submit the following report of work carried on under the supervision of the bridge department up to March 31, 1908.

Contracts for the erection of superstructures of steel bridges are being carried on in districts 'B and 'F,' and I am giving herewith a tabulated statement showing the name and location of each bridge, with name of contractor and accounts paid on each.

In district 'B' shop work has been prosecuted on the following bridges:—

	Mile.
Etchemin river	420.38
River le Bras	446.54
River aux Pommes	479.24
Portneuf river	488-64
St. Anne river	503.24
Charest river	510.44
Batiscan river	524.74
Overhead crossing (public road)	530.54
Tawachiche river	542.74
Roberge creek	544.74
R. des Eaux Mortes	554.74

And the Batiscan bridge, mile 524.74, also high crossing at mile 530.54 have been erected and practically completed at the present date.

The Cap Rouge viaduct, mile 462.34, though within the limits of district 'B,' in the province of Quebec, has been separated from this district and the erection and field operations have been under the direct supervision of Mr. E. A. Hoare, divisional engineer. This is the largest single structure we have under contract, and consists of a steel viaduct, 3,335 feet long and 153 feet from base of rail to high water mark. The roadway is supported by braced steel towers of 40 feet spread

longitudinally, and battered two inches to the foot transversely, the foot of each tower posts resting on concrete pedestals and anchored thereto by two 2½-inch bolts built into the concrete, the spans between towers are 60-foot deck plate girders, excepting the river spans, which are 160 feet and 150 feet deck trusses, the towers for which are resting on massive concrete piers founded by the pneumatic process. The eastern approach span is a 125-foot deck truss in order to avoid having pedestals on the face of the cliff. The entire substructure was completed before the end of 1907. Erection of superstructure began June 8, 1907, and was prosecuted till December 5 of the same year, the work closing down for the winter and about 2,300 feet of structure being assembled and riveted. Erection work was resumed in April, 1908, and is being pushed to completion.

In district 'F' the steel for the crossing over the Canadian Pacific Railway near Rennie, mile 1,736.61, has been completed, also the steel for Whitemouth bridge, mile 1,749.27, and the erection gang have been removed and are preparing to erect the Brokenhead bridges, east and west branch, mile 1,767.4 and 1,774.

The Winnipeg river crossing, mile 1,693, consisting of a through lattice bridge of 300-foot span and one approach span of 100 feet deck girder, is now ready for the steel, which can be started when track is laid to the bridge site. The material for this bridge is in the shops of the Canadian Bridge Company at Walkerville, Ont., and the shop drawings for the same have been checked and approved.

In connection with the general work of the bridge department staff, the procedure is, as soon as we are furnished with a plan and profile on a large scale of a bridge crossing by the district engineer in whose district it occurs, we prepare a general and detailed drawings for each. The data to be furnished us on the preliminary plans must be full and are set forth in the book of general instructions issued by the chief engineer. Borings are made to determine the character of the subsoil and where piling is required test piles are driven, from the record of which we determine the extent to which each pile may be loaded to arrive at the number of piles required to support the superimposed load, thus a complete plan is furnished from this office for both substructure and superstructure for each case for the contractors to work to. When tenders are called for we supply the bridge companies with general drawings, and drawings for standard steel bridges which are to apply in each case. After the tender is awarded the bridge company prepares the detailed shop drawings, which we check and return marked 'approved' when they are satisfactory.

#### INSPECTION.

All the steel from the mill to erection is subject to close nad systematic inspection. This work has so far been put into the hands of the Canadian Inspection Company of Montreal, who supply competent inspectors at the mills and at the bridge shop. The inspection company report regularly on forms furnished for that purpose, first giving a detailed report on each angle, bar or plate rolled; this includes a chemical analysis of piece cut from each melt, and the physical tests prescribed in the specifications. The shop inspection is carried out by the inspector following each piece of work and checking it with the shop drawings; all defective rivets are cut out and replaced, and each member must leave the shop in good shape and ready to be assembled in the field. From the shop reports we are informed weekly of the condition of each portion of the bridge being fabricated. The same company also put a field inspector on erection who exercises the same care as to assembling, field riveting and painting, and his weekly report tells us exactly in what condition each structure is at the time. All this work has been done in a very satisfactory manner.

#### CEMENT TESTING.

In order that no cement shall be used but that of the best quality, a cement testing laboratory has been established in Ottawa in charge of a chief cement inspector.

As concrete is the material which is now used on our structures in the place of masonry, the importance of testing all cement is recognized, and our experience, covering a period of two years, during which time over 1,500 cars of cement have been fully tested, shows the wisdom of this course, and I consider the expenditure incurred is fully justified. When a car of cement arrives on the order of our contractors, our inspector on the ground samples by taking a small portion from one barrel in ten, or from one bag in forty, and forwards the result in a tin case to the headquarters' laboratory; we have several hundred of these cases on the road constantly. A sampling record form is filled out and placed in the box, giving car number and all necessary information as to brand of cement and destination. sample is, on its arrival, put through the regular tests, and on completion of the 28 days' tests, neat and with sand, a final record is sent to the district engineer, giving full particulars of all tests, and stating whether that particular car is to be accepted or rejected. Our laboratory is well equipped with all the necessary apparatus, and a thorough system of records has been introduced which is very necessary in view of remote points from which samples are sent and the numerous brands in use. Where a chemical analysis is required, or check tests advisable to settle disputes, we send a sample to an independent chemist for test, and the matter has thus been fianlly settled.

R. F. UNIACKE,

Bridge Engineer.

F STEEL BRIDGES AND AMOUNTS PAID 31, 1908. COST OF
MARCH 3 APPROXIMATE ESTIMATED SHOWING STATEMENT

COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

(District "B.

in No. 40	
Paid to Mar. 31, 1908.	5, 520 5, 520 5, 520 7, 089 7, 089 7, 089 1, 246 6, 493 7, 089 1, 446 6, 493 7, 089 1, 416 1, 416 1, 520 1, 1718 1, 358 1, 358 1, 358 2, 968 3, 92 1, 358 3, 92 3, 93 1, 718 1, 358 3, 94 1, 358 3, 96 3, 96
Total Est. sost of super- suructure.	23,842 08 3,718 56 3,718 56 3,718 56 3,718 56 2,232 86 2,232 86 2,232 86 1,273 65 1,
Rate per M. b.m.	35     36     36     37     42     42     42     36     <
Timber.	50,400 12,000 12,000 12,000 52,900 50,300 50,300 60,800 101,300 16,000 170,000
Rate per jb.	444     8       451     8       452     8       453     8       454     8       455
Est. Weight of steel in lbs.	446,400 64,800 64,800 64,800 37,900 376,000 373,000 33,000 33,000 33,000 33,000 33,000 33,000 33,000 33,000
Contractor.	Dom Br. Co.
Description.	2-70' and 2-100' dk. pl. gr. spans 1-66' thro. pl. gr. span 1-rocker bent, 30 towers. 40' 32- 40' and 27-61' dk. pl. gr. spans 1-125' dk. truss span 5 panels. 1-150' " 6 " 6 " 1-160' " 6 " 7-150' dk. pl. gr. span 1-rocker bent, 2 towers 30' 2-60' 2. 30' 1-80' dk. pl. gr. 1-100' R. dk. truss 2-60' and 1-100' dk. pl. cr. spans 1-33' thro. pl. gr. span 2-70' and 2-100' dk. pl. cr. spans 2-50' dk. pl. gr. span 1-30' dk. pl. gr. span 2-70' and 1-45' dk. pl. cr. spans 1-75' and 1-45' dk. pl. cr. spans 1-75' and 1-45' dk. pl. cr. spans 3 kewed gr. spans, 2-100' and 1-200'. Dk. pl. cr. spans, 2-100' and 1-200'. Dk. truss spans 3 skewed gr. spans 1-44' thro. pl. cr. span 1-125' dk. truss span 1-125' dk. truss span 2 towers 60' span, 5 towers 40' span, 2-90', 6-60', 5-40', 3-75', dk. pl. cr. spans, 1-255' dk. truss span
Through Mileage.	420.38 433.19 446.54 462.34 462.34 462.34 503.24 503.24 503.24 503.24 504.74 554.74 556.74
Name.	Etchemin River  Over X'ing Q.C. Ry.  River le Brae Cap Rowge Viaduct  Jacques Cartier River  Lachevrotiere River.  Ste. Annes River  Nigerette River  Nigerette River  Overhead X'ing (Higinw'y)  Tawachiche River  Roberge Creek  River des Eaux Mortes.  River du Milieu.

THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

BRIDGES AND AMOUNTS PAID ., 1908. STEEL TO MARCH 31 COST OF SHOWING APPROXIMATE ESTIMATED STATEMENT

District "F

neage.
100' cr. spans
dk. pl. cr. spans  70 to 0 thro. pl. cr. spans  70 to 0 dk. pl. cr. spans

SESSIONAL PAPER No. 46

Points ATBY VARIOUS CONTRACTORS, 31, 1908. TO MARCH DISTRICT BELOW, DISTRIBUTION OF TIES IN DESIGNATED STATEMENT

DISTRICT "F."

Total value ties Delivered.	\$\text{cts.}\$ cts.\$\frac{175,759}{1,792} \frac{35}{35}\$\frac{35}{479} \frac{66}{70}\$\frac{281}{2,400} \frac{60}{00}\$\frac{2}{7,099} \frac{60}{60}\$\frac{711}{7,099} \frac{65}{711} \frac{65}{65}\$\frac{711}{711} \frac{711}{711} \frac{711}{71	2,184 70 61,786 40 33,687 18 234 90 62,237 67 19,730 14 32,774 45 6,568 35 2,406 00	\$515,454 94 609 60 \$516,064 54
Value.	\$ cts. 46,644 40 7,000 00 7,000 00 76 95 20,259 20 5,395 80 5,395 80 5,395 80 5,395 80	1,083 60 29,394 40 12,053 68 144 99 6,219 00 6,219 00 5,004 60	170,632 61
Rate.	Ots: 55 155 - 68 - 68 - 69 - 69 - 69 - 69 - 69 - 69	70 64 · 3 67 67 60 75 60 75	20
2nd class.	84,808 3,274 20,000 513 31,168 7,935 1,328	1,548 41,992 18,746 10,267 10,365 2,085 8,341	284,362 ot ties at \$1 tal value.
Value.	\$ cts.  129,115 20 1,301 25 32,000 00 46,022 60 2,400 00 1,703 80 137 25 180 45	1,101 10 32,392 00 21,633 50 89 91 34,529 82 12,851 25 26,555 45 2,406 00	344,822 33 508 twelve-fo
Rate.	Cts. 28.88.88.88.88.88.88.88.88.88.88.88.88.8	78 78 67 67 69	
1st class.	215, 192 5, 205 80, 000 1, 611 70, 804 2, 434 401	1,573 40,490 30,905 17,135 39,635 4,010	558,080
No. contracted for.	300,000 Cut on right-of-way. 100,000 Cut on right-of-way. 157,200 4,000	7,000 50,000 50,000 100,000 25,000 50,000 4,000	Totals.
Contractor.	Eastern Construction Co.  D. Galbraith. Bobt. Bates. D. Galbraith. D. L. Mather. W. Wardrobe. W. Wardrobe.	J. & J. Couture. F. P. Elliott J. Hyland & Co J. T. Horne J. E. Tempest E. Guilbault D. L. Mather	Rat Portage Lumber Co
Mile.	0 - 80. 136 -146. 148. 4-150. 155 182 193 193 - 200. Place.	St. Boniface	

\* Deliveries at both of these points embodied in one Contract.

To accompany Chief Engineer's Report for Fiscal Year ending March 31,

1908. Distribution of Ties, Delivered S'ratement showing

Second contract 335,000 ties. Total. 545,000	42,000 288,827 31,576
Total ties contracted for	Total
Required to committee contract 14 597	

83

\$281,844

## COMMISSIONERS OF THE TRANSCONTIENTAL RAILWAY.

STATEMENT OF APPROXIMATE TONNAGE AND VALUE THEREOF OF TRACK MATERIAL DELIVERED UP TO MARCH 31, 1908.

Dist.	Contractor.	Rate.	No. of Tons.	Point of Delivery.	Tons Delivered.	Approxi mate value.
AABBBBBB	Rails— Dominion I. & S. Co.  Algoma Steel Co.  (In storage at mill under Insurance.)	35 85 37 60 37 60 34 00 35 00 35 00 35 00 34 00	4,023 3,771 4,777 23,000 1,886 10,686 8,800 Deliv'd	Edmundston. Quebec Levis from Quebec:	3,391 $3,771$ $3,043$ $21,111$ $810$ $10,686$ $270$ $1,886$	\$ cts  241,949 81  230,313 61  744,247 11  355,240 92  63,936 30
F	Algoma Steel Co			Pt. Arthur	F 4=0	188,529 89
A	11 11	48 16 47 04 47 04 46 58	$ \begin{array}{c}     200 \\     1,217 \\     100 \\     568 \end{array} $		201 1,219 103 569	3,204,148 84  19,375 09  57,367 89  4,861 04  26,500 68  98,305 36
A	Spikes— Montreal Rolling Mills.  Peck R. M. Co.  Montreal R. M. Co.  Peck R. M. Co.  Montreal R. M. Co.  Toronto B. & F. Co.  Hamilton S. & I. Co.	$   \begin{array}{r}     2 & 48 \\     2 & 50 \\     2 & 34 \\     2 & 50 \\     2 & 55 \\     2 & 55   \end{array} $	98 594 277 Deliv'd		98 544 247 50	206,410 06 9,653 01 27,244 00 12,983 44 18,592 56 18,592 56 18,592 56
A B B B F	Montreal R. M. Co. Gan. Bolt Co.  Montreal R. M. Co. Gan. Bolt Co.	$   \begin{array}{r}     3 & 68 \\     3 & 57\frac{1}{2} \\     3 & 41 \\     3 & 56 \\     3 & 76 \\     3 & 44 \\     3 & 65 \\   \end{array} $	112 53 76 14 103 102	Moncton. Edmundston. Quebec Levis Port Arthur	$ \begin{array}{r}     27 \\     112 \\     53 \\     76 \\     14 \\     103 \\     102 \\     103 \end{array} $	3,655 72 5,469 07 1,019 11 7,105 65 7,489 22

Office of the Chief Engineer.

OTTAWA, July 13, 1908.

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY. STATEMENT OF CASH DISBURSEMENTS FOT THE TWELVE MONTHS ENDED MARCH 31, 1908.

	Contracts	Pay rolls	Accountspayable
December	699,473 $62$ $938,440$ $46$ $911,269$ $24$ $1,313,019$ $70$ $1,566,498$ $18$ $1,309,816$ $32$ $1,310,969$ $49$ $1,614,310$ $91$ $1,769,304$ $45$ $1,399,810$ $73$	\$ cts.  10,559 15 55,904 38 75,951 87 87,425 20 93,187 87 89,292 21 97,989 70 84,406 51 89,732 03 80,792 89 80,353 67 84,980 18 65,444 10 6,516 05	88,584 56 192,533 93 203,085 94 107,386 71 101,181 48 82,756 79 173,007 81 977,590 33
	15,637,591 05	1,002,535 82	2,346,786 77

#### SUMMARY.

Cheques issued for contract account
\$ 18,986,913 64 Less amount deposited to credit of Receiver
General
* 18,910,449 41

D. HOCTOR,
Chief Accountant.

#### THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR THE TWELVE MONTHS ENDED MARCH 31, 1908.

#### Summary—Detailed Statement Attached.

Headquarte	ers, Ott	awa.						\$	339,958	87		
								_			339,958	87
Location—	District	Α		,					57,359	45		
66									81,902			
66	66								*			
66	66											
66									40,189			
66 .									57,739			
											399,645	92
Transport-	–Distric	t A.										
66									10,563			
66									95,663			
66		_							-			
66									44,319			
66	66								23,630			
					• •						270,241	50
Construction	n—Dist	trict	Α .					\$	1 178 605	70	_,,	
66									8,167,554			
66									5,105			
66									388,056			
66									5,415			
66									8,155,864			
			T	• • •		• • •	• •	• • •	0,100,004		4	
											17,900,603	12
/TI	. 4 . 1	1: <i>i</i>			r					_	ф±0.0±0.4±0	4 -4
1.0	otal expe	andit.	ure	• •	• • •		• •				\$18,910,449	41

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF LIABILITIES	ON	March	31,	1908.
--------------------------	----	-------	-----	-------

Ten per cent reserved on contracts—				
District A	\$ 50,311	40		
B				
D	1,923	49		
F	394,748	15		
		-	969,552	40
Outstanding time checks\$	858	67		
			858	67
Wages advanced to employees, collected from pay-				
rolls, not yet claimed by the officers making		0.0		
such advances	140	80	4.40	00
			140	80
CONTINGENT LIABILITIES.				
Amount of unclaimed cheques deposited to the credit of the Receiver General, viz.:—				
For year 1904-5\$	170	35		
1905-6				
1906-7		10		
			341	30
		\$	970,893	17
				==

D. HOCTOR,
Chief Accountant.

#### THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR THE TWELVE MONTHS ENDED MARCH 31, 1908.

Headquarters,	Ottawa—
Commissio	oners and s

Commissioners and stanter ere ere ere ere ere ere	01,400 10
Accounting department	14,155 00
Purchasing "	
Engineering "	
Transport "	1,650 00
Travelling expenses	4,086 82
Rent	4,759 60
General expenses	
Supplies	16,673 47
Furniture and fixtures	1,678 54
Freight and express	
Telegraph and telephone	
Insurance—Fire and Fidelity	
Legal expenses	
Advance account	

\$339,958 87

D. HOCTOR,

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

-					
- ( )	2.5	tra	ct.	A	

Engineering	\$40,533	25
Supplies	7,870	14
General expenses	3,192	54
Freight and express	848	35
Camp outfit	1,895	17
Furniture		
Medical fees and drugs	93	80
Shop machinery and tools	721	05
Instruments	1,743	80
Miscellaneous structures	85	91

\$57,359 45

D. HOCTOR,
Chief Accountant.

A HH AAM AH

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1908.

#### District A-

Engineering\$	77,065	67
Supplies	11,570	03
General expenses	28,123	97
Freight and express	1,724	69
Camp outfit	2,934	84
Furniture	494	07
Medical fees and drugs		15
Instruments	6	00
Right of way	66,711	86
Grading	363,794	84
Clearing	34,230	82
Grubbing	2,961	39
Bridges, trestles and culverts	79,839	89
Ties	13,489	63
Rails	502,191	02
Crossings, cattle guard and signs	47	68
Track fastenings		
Track laying and surfacing	1,371	95
Frogs and switches	6,262	63
Interlocking or signal appartus	120	80
Fencing right of way	2,077	40
		-\$1,228,917 10
Less contract reserve		50,311 40

\$1,178,605 70

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

# District B-

Engineering	• •		• •	\$50,284	22
Supplies			• •	. 14,133	44
General expenses					
Freight and express					
Camp outfit				2,652	01
Furniture				.: 595	75
Medical fees and drugs		• •	• •	940	98
Instruments	• •			4,443	74
Shop machinery and tools	• •		• •	660	00

\$81,902 15

# Transport servics-

Transport	\$ 8,601 75
Supplies	 61 44
General expenses	
Freight and express	
Travelling expenses	
Camp outfit	

\$10,563 95

# D. HOCTOR,

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1908.

#### District B-

Engineering	\$ 202,524	57	
Supplies	44,846	38	
General expenses	42,386	13	
Freight and express	6,058	97	
Camp outfit	10,504	33	
Furniture		43	
Medical fees and drugs	424	45	
Instruments	182	00	
Miscellaneous structures	548	15	
Legal expenses	120	25	
Right of way and station grounds	287,639	93	
Grading	4,525,594	79	
Clearing	110,299	40	
Grubbing	22,402	95	
Bridges, trestles and culverts	1,712,340	46	
Rails	809,897	91	
Track fastenings	72,471	52	
Frogs and switches	8,330	24	
Ties	276,869	25	
Track laying and surfacing	235,556	48	
Fencing right of way	43,783	99	
Crossings, cattle-guards and signs	8,600	68	
Tunnels	40,728	95	
Telegraph line	2,025	00	
Interlocking or signal apparatus			
		\$8,467,124	21
Less contract reserve			
LICSS COMULAÇU I CSCI VO		200,000	

D. HOCTOR,

Chief Accountant.

\$8,167,554 53

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

, and the first of the first the first the first of the state of the s	
District C-	
Engineering\$80,232 35	
Supplies	
General expenses	
Freight and express	
Camp outfit 5,949 24	
Furniture	
Medical fees and drugs	
Instruments	
\$97,866 75	
$Transport\ service-$	
•Transport\$39,127 59	
Supplies	
General expenses	
Freight and express	
Travelling expenses	
Camp outfit	
Medical fees and drugs	
\$95,663 88	

D. HOCTOR,
Chief Accountant.

#### THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1908.

Dis	trict C-		
	Engineering	\$	29 35
	Supplies		
	General expenses		121 93
	Camp outfit	• •	118 34
	Freight and express		5 00
	Shop machinery and tools		
	Medical fees and drugs		34 30
		=	
		.\$	5,105 42
		=	

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

#### District D-

Engineering\$48,080	08
Supplies	61
General expenses	99
Camp outfit 5,657	51
Freight and express	84
Medical fees and drugs	56
Instruments	87
Furniture 485	63

\$64,588 09

# Transport service-

8
4
38
30
72
90
09
)1

\$96,063 13

## D. HOCTOR,

District E-

#### 8-9 EDWARD VII., A. 1909

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON	CONSTRUCTION F	FOR THE YEAR	ENDED MARCH 31, 1908.
-----------------------------	----------------	--------------	-----------------------

District D	
Engineering\$ 20,845	76
Supplies	
General expenses	63
Camp outfit	10
Freight and express	35
Medical fees and drugs	15
Shop machinery and tools	60
Furniture 253	21
Right of way 825	65
Clearing 18,684	50
Grubbing	80
Grading	20
Bridges, trestles and culverts	19
Rails	28
\$389,980	30
Less contract reserve	49
\$388,056	81

# D. HOCTOR, Chief Accountant.

#### THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

District L		
Engineering\$3	3,654	81
Supplies		
General expenses		
Camp outfit		
Medical fees and drugs		
\$4	0,189	51
Transport service-		
Transport	5,742	65
Supplies	2,808 ′	72
Camp outfit	333	92
General expenses	774	25
Freight and express	3,238	36
Travelling expenses	1,301	95
Medical fees and drugs	119 '	75
\$4	4,319	60

#### THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1908.

District E	!
------------	---

Engi	neering														.\$	736	98
Supp	olies				• /											3,071	50
Camj	p outfit.		•													576	58
Gene	ral expe	enses.	 			•										967	70
Furn	iture															56	00
Ties.				1.		 	•	•								7	00
Furn	iture		 1.		•						٠					56	00

\$5,415 76

D. HOCTOR,
Chief Accountant.

## THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE FOR LOCATION FOR THE YEAR ENDED MARCH 31, 1908.

T			7.7	
110	OTA	nat	F—	
111	NILL	Dec. L.		-
-	UVI	000	100	

Engineering	72
Supplies	99
General expenses	17
Camp outfit	49
Medical fees and drugs	60
Furniture	00

\$57,739 97

#### Transport service-

Transport\$	8,500	55
Supplies	3,154	26
Camp outfit	376	58
General expenses	1,007	38
Freight and express	9,685	12
Travelling expenses	635	30
Medical fees and drugs	271	75

\$23,630 94

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF EXPENDITURE ON CONSTRUCTION FOR THE YEAR ENDED MARCH 31, 1908.

District F—	
Engineering\$ 157,871	01
Supplies	
General expenses	5.1
Camp outfit	82
Legal expenses	00
Medical fees and drugs	38
Furniture 487	18
Right of way	83
Grading	
Clearing	
Grubbing	
Bridges, trestles and culverts	
Rails	
Track fastenings	
Ties	
Track laying and surfacing	
Frogs and switches	
Tunnels	
Ballast and ballasting	
Fencing right of way	
Crossings, cattle-guards and signs 997	
Telegraph line	75
фо 404 440	00
\$8,421,419	
Less contract reserve	
\$8,155,864	90

# D. HOCTOR,

Chief Accountant.

# THE COMMISSIONERS OF THE TRANSCONTINENTAL RAILWAY.

STATEMENT OF THE TOTAL EXPENDITURE FOR THE WORK DONE UNDER THIS COMMISSION UP TO MARCH 31, 1908.

Expenditure from September, 1904, to June 30, 1905\$	778,363	63
Expenditure for the year ended June 30, 1906, including the		
amount paid by the Finance Department to the Grand		
Trunk Pacific Railway Company for the surveys east of		
Winnipeg, taken over by the Commissioners, viz .:-		
\$352,191.73	1,831,263	50
Expenditure for the nine months ended March 31, 1907	5,537,867	50
Expenditure for the year ended March 31, 1908	18,910,449	41
,		
Total expenditure to March 31, 1908	27,057,944	04

D. HOCTOR,

# To the Commissioners of the Transcontinental Railway:-

GENTLEMEN,—I have the honour to submit herewith a statement of the purchases made during the fiscal year ending March 31, 1908.

Province of Alberta	\$	248	70
Province of British Columbia		479	75
Great Britain	,	3,947	73
Province of Manitoba		34,266	10
Province of New Brunswick		22,771	39
Province of Nova Scotia		5,603	66
Province of Ontario		140,979	60
Province of Prince Edward Island		136	50
Province of Quebec		178,859	85
Province of Saskatchewan		183	50
United States		4,286	43
	_		
Total	\$	391.763	21

A. L. OGILVIE,

General Purchasing Agent Transcontinental Ry.

